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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,264	01/25/2002	Gerald D. Bjorkman	42390P11967	2756
8791	7590	12/21/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN			TRAN, HUAN HUU	
12400 WILSHIRE BOULEVARD			ART UNIT	
SEVENTH FLOOR			PAPER NUMBER	
LOS ANGELES, CA 90025-1030			2861	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,264

Applicant(s)

BJORKMAN ET AL.

Examiner

Huan H. Tran

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-20 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/22/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Okabe et al. (US Patent 5262374) in view of Fukaya et al. (JP 07-089242).

With reference to Fig. 7, Okabe et al. discloses:

A thermal image generation device comprising:

a casing (61) forming an interior cavity, one surface the casing including a screen (the horizontal part between the vertical parts) ;

a thermochromic material (65) attached to the screen; and

at least one thermal transfer element (67, the details of it is described in Col. 18, lines 13-44)) movable over regions of the thermochromic material to effect recording.

Okabe et al. differs from the claimed invention with respect to the limitation “alter a temperature at the regions from a steady-state, ambient temperature which temporarily causes a color variation of the thermochromic material until the regions of the thermochromic material return to the ambient temperature”. In Okabe et al. the thermochromic material retains the color variation (see the paragraph bridging columns 10 and 11), whereas in the invention the color variation disappears when the thermochromic material returns to ambient temperature.

Fukaya et al. discloses such thermochromic material and recording method. See [0007]-[0008].

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Therefore it would have been obvious to one of ordinary skill in the art to use the thermochromic material and recording method taught by Fukaya et al. in the thermal generation device taught in Okabe et al. so as to obtain a method of forming an temporary image using a thermochromic material wherein the image would naturally disappear.

3. Claims 2, 3, 4, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okabe et al. in view of Fukaya et al. as applied to claim 1 above, and further in view of Oguchi et al. (US Patent 4734359) .

Okabe et al. in view of Fukaya discloses the essentially the claimed invention for the reason given above. In the embodiment shown in Fig. 7, Okabe et al. shows a writing instrument 67, whereas in the embodiment shown in Fig. 11, Okabe et al. shows a thermal head 117 as the writing instrument. The writing instrument is controlled by control section 121 to control the activation and deactivation of the writing instrument.

Okabe et al. does not clearly show that the thermal head is controlled by a mechanical logic to control placement of the thermal head along the X-Y surface of the thermochromic material.

However, it is submitted that such X-Y writing head is notorious old and well known in the art such as shown in Oguchi et al. (Fig. 4: Col. 5, lines 15-20 ; Fig. 7: col. 6, lines 35-40) showing a line type thermal head or laser head having an array of heating elements arranged in an array in a direction and the thermal head can be moved with respect to the thermochromic recording material).

Therefore, it would have been obvious to one of ordinary skill in the art to use modify the thermal head 117 of Okabe et al. in view of Oguchi et al. so that the thermal head is controlled by a mechanical logic (not shown but is inherent in Oguchi et al.) to control placement of the thermal head along the surface of the thermochromic material.

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Allowable Subject Matter

4. Claims 8-15, 16-20 are allowed.

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

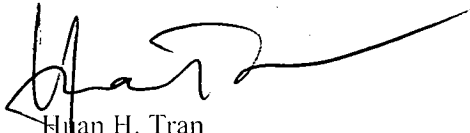
6. The following is a statement of reasons for the indication of allowable subject matter: As to claims 16-20, prior art do not teach or suggest the claimed monitoring step and the deactivating step.

AS to claim 8, prior art do not teach or suggest the claimed combination.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (571) 272-2261. The examiner can normally be reached on at work on W-F from 6:30 to 5; T are telework days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbot can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Huan H. Tran
Primary Examiner
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hht

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